



West Nile Virus Newsletter

This is an electronic publication designed to keep you informed on issues of interest related to West Nile virus (WNV) in Washington, and provide current information to assist you in developing a response plan to WNV in your jurisdiction.

Threat Level

The overall threat level remains at Risk Category 1a. If any county moves to a higher category, the threat level will become a county-by-county designation. This section of the newsletter will then provide updated information statewide and changes in county status. No positive birds have been reported this year.

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Surveillance News

Activity has increased in the South and Midwest parts of the country. Florida reports increased sentinel chicken flock WNV activity and Georgia has three positive birds reported. Louisiana reported 42 positive birds out of 771 tested with the earliest positive on March 17. Louisiana also has two suspect human cases. Michigan reported one positive bird and an early horse case occurred in Minnesota with an onset date of April 14.

Three samples collected in April from a horse that died with symptoms of WNV in El Salvador, tested positive at CDC. This is the first report of WNV infection in horses in Central America and represents the most southerly penetration of the virus.

Anecdotal information is increasing regarding adult mosquito activity in many areas. Larval collections have produced high numbers in some Westside locations. Habitat reduction by homeowners and bite prevention messages need to be emphasized, particularly as we begin the camping and other outdoor activity season.

Communicable Disease Epidemiology and Public Health Laboratory Update

A pre-print article in CDC's Emerging Infectious Disease journal titled *Acute Flaccid Paralysis and West Nile Virus Infection* describes the clinical, electrodiagnostic, and laboratory features of this manifestation of WNV infection. It can be found at <http://www.cdc.gov/ncidod/EID/vol9no7/03-0129.htm>.

Washington Public Health Laboratory (WPHL) has received two submissions for human WNV testing this year, and both have tested negative. WPHL is currently completing the proficiency test requirements for performing ELISA testing for IgM and IgG antibodies to WNV.

Public Health-Seattle and King County Health Department has developed a very good video on the clinical and environmental aspects of WNV. It can be accessed at <http://www.metrokc.gov/health/westnile/>.

Permit Update

Seventeen local and one state agency have received coverage under the departments NPDES permit. Those receiving coverage include two county agencies, six cities, five mosquito control districts, three private landowners, and the Department of Transportation. To view the permit or apply for coverage through DOH see: <http://www.doh.wa.gov/ehp/ts/Zoo/WNV/Permit.html>.

Please note the following email address correction for Benjamin Hamilton, the contact for NPDES permit applications: benjamin.hamilton@doh.wa.gov.

Mosquito Focus

An addition to the newsletter will be information on mosquitoes that may be significant vector species for West Nile virus in Washington. In this issue we highlight *Culex pipiens*, the northern house mosquito.

Culex pipiens is one of the most common mosquitoes in urban and suburban settings. Although they occur in rural environments, they reach their highest numbers in more populated areas, and readily enter houses. Eggs are laid in a variety of locations including artificial containers, catch basins, stormwater ponds, and clean and polluted ground pools. Larvae may be present from spring through fall and many generations are produced each year.

The last generation of adult females mate and build fat by feeding on carbohydrates. They then find refuge in culverts, basements, and other protected areas that stay above freezing. Their body metabolism slows considerably and females that survive the winter blood feed in the spring and lay eggs that produce the summer populations.

Culex pipiens is normally considered to be a bird feeder, but will also feed on humans and other mammals. It is primarily an evening biter and migrates only short distances. If West Nile virus is introduced to an urban setting, *Culex pipiens* will amplify the infection in urban birds, including crows, and house sparrows.

The wide distribution of this species in Washington, especially in highly populated areas, makes it one of the primary species of concern for West Nile virus.

More on Crows

Descriptive information and pictures of crows showing different age characteristics is available at http://www.urbanecology.washington.edu/Crows/crows_age.html. Age can be useful in determining the significance of crow deaths in a particular area as juvenile and fledgling crows have a very high natural mortality rate as compared to mature crows.

Community Comments

Let us hear your comments on this newsletter, your needs, or things you would like to see, by sending them to Maryanne Guichard, (360) 236-3391 or maryanne.guichard@doh.wa.gov.

WNV Web Resources

Washington State Department of Health www.doh.wa.gov/wnv

Center for Disease Control <http://www.cdc.gov/ncidod/dvbid/westnile/>

Washington State University Cooperative Extension <http://wnv.wsu.edu/>

Cornell University, Center for Environment <http://www.cfe.cornell.edu/erap/WNV>

DOH Contact List for West Nile Virus

General Public Toll-Free Hotline 1-866-78VIRUS

Publications: Brochures/Response Plan/Fact Sheets

Laura Harper, (360) 236-3380, or laura.harper@doh.wa.gov.

Surveillance: Mosquito

Jo Marie Brauner, (360) 236-3064, or jomarie.brauner@doh.wa.gov.

Surveillance: Dead bird surveillance and general WNV response

Tom Gibbs, (360) 236-3060, or tom.gibbs@doh.wa.gov.

Surveillance: Horses, case reporting, laboratory assistance

Dr. John Grendon, (360) 236-3362, or john.grendon@doh.wa.gov.

NPDES: Training, technical assistance

John Daly, (360) 236-3305, or john.daly@doh.wa.gov.

Ben Hamilton, (360) 236-3364, or benjamin.hamilton@doh.wa.gov.

WNV in Humans: Clinical information, case reporting, and laboratory testing

Call your local health jurisdiction or DOH Communicable Disease Epidemiology, (206) 361-2914 or (877) 539-4344.

Assistance with news releases and media response

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